REGION 5 Enforcement and Compliance Assurance Division

INSPECTION REPORT

Inspection Entry Date/Time:	11/29/2022 9 AM	**Announced:** Yes
Inspection Exit Date/Time:	11/29/2022 2 PM	**Access:** Granted
Weather:	Clear conditions	
Media:	Water	
Statute(s)/Program(s):	Safe Drinking Water Act and Title 35, Subtitle F of the Illinois Administrative Code (Ill. Adm. Code)	
Type of Inspection:	CEI – Compliance Evaluation	
In-Person Inspection:	Yes	
System Name:	Stateville Correctional Center	
System Physical Address:	16830 Illinois State Route 53,	
Facility/Site Identifier:	110018324687	
(City, state, zip code)	Crest Hill, Illinois, 60434	
County/Borough/Parish:	Will	
Environmental Justice Area:	Yes	
PWS ID:	IL1977910	

Persons Participating in Inspection:

Name	Title/Organization	Phone	Email	Present in Opening Conf.	Present in Closing Conf.	Present during Site Walkthrough
Taylor Girouard	Lead Inspector/EPA	312-353-1394	girouard.taylor@epa.gov	Yes	Yes	Yes
James Adamiec	Inspector/EPA	312-886-0815	adamiec.james@epa.gov	Yes	Yes	Yes
Thomas Swenson	Inspector/EPA	773-407-4202	swenson.thomas@epa.gov	Yes	Yes	Yes
Chris Johnston	Illinois EPA	618-993-7214	chris.johnston@illinois.gov	Yes	Yes	Yes
Jermiagh Daly	Stateville Correctional Center	815-727-3607	jermiagh.daly@doc.illinois.gov	Yes	Yes	Yes
Chris Jarzyna	Stateville Correctional Center	NA	Christopher.jarzyna@doc.illinois.gov	Yes	No	Yes
Frank Dunmire	Operator of Record/Illinois Rural Water Association	217-287-2115	dunmire@ilrwa.org	Yes	No	Yes
Steve Vance	Illinois Rural Water Association	NA	NA	Yes	No	Yes

Lead Inspector:

Taylor Girouard	TAYLOR GIROUARD Digitally signed by TAYLOR GIROUARD Date: 2023.01.04 08:17:18 -06'00'		
	Region 5	girouard.taylor@epa.gov	312-353-1394

Supervisor Review:

Elizabeth Murphy	Elizabeth Murphy Digitally signed by Elizabeth Murphy Date: 2023.01.06 08:18:26 -06'00'		
	Region 5	murphy.elizabeth@epa.gov	312-353-4227

SECTION I – INTRODUCTION

This Section describes the site entry, authority and purpose of the inspection at the system and a water system description.

Site Entry and Inspection Objectives

Taylor Girouard and the inspection team, arrived at the Stateville Correctional Center (the "System"), located at 16830 Illinois State Route 53, Crest Hill, Illinois, 60434, at 9 AM on November 29, 2022, for an announced inspection. Taylor Girouard presented credentials to System personnel and informed them that this was a Region 5 inspection to determine compliance with the Primacy Agency requirements and the Safe Drinking Water Act (SDWA). The inspection was conducted under the authority of the SDWA Section 1445. This report is based on information supplied by System representatives, observations made by the Region 5 inspectors, and records and reports maintained by the System and Region 5 including: direct observations made by the Region 5 inspectors, photographs taken by Region 5 inspectors, physical evidence collected by the Region 5 inspectors, measurements taken by Region 5 inspectors, verbal or written statements made by information supplied by System representatives during or subsequent to the on-site Inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the Region 5 inspectors by System representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or after the Inspection from a review of USEPA, State, and public records may be included in this report.

The scope of the inspection was an onsite review of the water source, facilities, equipment, operation, maintenance, and monitoring compliance of a public water supply (PWS) to evaluate the adequacy of the PWS, its sources and operations, and the distribution of safe drinking water.

System Description

According to the Illinois EPA Drinking Water Watch, the System is owned by the Illinois Department of Corrections, serves a population of approximately 2,400 people and has 18 service connections. It is a community water system as defined by 40 C.F.R., Part 141 Subpart A. Illinois maintains the Illinois EPA Drinking Water Watch which provides a record of the System's owner, operator, and size. The System water source is purchased ground water from Crest Hill public water system.

System Information

The System representatives supplied additional information during a staff interview and throughout the inspection. This information is organized into discussion topics and the topics are designated with a reference number. Each entry then indicates whether the discussion topic is an Area of Concern (AOC). AOCs are further discussed in Section V. Discussions may not be in sequential order in which they occurred.

Reference #: IN-001	**Topic:** System Overview and Staff	**AOC:** Yes
The source water for the System is purchased groundwater from Crest Hill public water system. Water enters the System through one entry point at the System's sole elevated water tower and is sent directly out to the distribution system. The System does not have chlorination treatment. Prior to 2004, the System was a groundwater system and had groundwater wells onsite. The System stated all of the wells were plugged and abandoned around 2004. The System stated that Stateville Correctional Center has two parts, Stateville proper and the Northern Reception Center (NRC). The age of water system is tied to the historical Stateville proper, and both are approximately 100 years old. The NRC was added on to Stateville proper about 20 years ago. Both of these facilities are served by the System but have separate populations; Stateville proper holds the long-term prisoners and the NRC holds the short-term prisoners. The population for the System varies but at the time of inspection the NRC had 979 people and Stateville proper had 470 in addition to approximately 1,100 Stateville Correctional Center staff. The System stated that in general the population of the prison has been moving downwards over the last few years.		

Mr. Daly is the Chief Stationary Engineer, and he has been with the facility for eight years. He's on site daily and oversees the operations of the System. He stated that he has a staff of nine plumbers and maintenance workers that divide work between the NRC and Stateville proper. The staff are not dedicated to just the water system and they do additional work for other parts of the Correctional Center. In addition to the plumbers and maintenance workers the System also has an engineer and a fireman located in the Correctional Center's Powerhouse to assist in managing the water system.

Mr. Dunmire, who works for the Illinois Rural Water Association, is currently contracted as the responsible operator in charge for the System. He has been with the System for approximately a year and is onsite on average twice per month. Mr. Dunmire collects the System's analytical samples, reviews the daily monitoring data, signs and generates the monthly operating reports (MORs), and more recently has been revising the System's lead and copper sample pool. Mr. Dunmire's operator contract with the System is set to expire in the next year.

At the time of inspection, the System stated that they are not sure if Mr. Dunmire's operator contract will be renewed with the Correctional Center and they currently do not have a replacement operator lined up in the event of this occurring. The System also stated that if they do not have an operator in place they do not have the resources to conduct their required analytical samples and keep up with their regular operations and maintenance.

Reference #: IN-002	**Topic:** Sampling and Monitoring Activities	**AOC:** No

On a daily basis, the System measures for free chlorine and collects readings for water usage and pressure from the water entry point located inside the elevated water tower. The System stated that every morning the Powerhouse fireman goes to the water tower and records readings from the System's master water meter and master pressure gauge. These readings are recorded in a log sheet inside the water tower and a separate log sheet in the Powerhouse. The fireman also will collect a water sample from the water tower sample tap and bring it back to the Powerhouse lab to measure the free chlorine residual for the day. The Powerhouse engineer conducts the daily free chlorine measurements using a Photometer that stays within the lab and this measurement is recorded on both log sheets inside the water tower and Powerhouse. Once all this information is collected Mr. Daly will compile the information and share it with Mr. Dunmire daily so he can use the information to generate the MORs. About three to four times a month the System will also collect a measurement for orthophosphate and pH which is recorded on the daily log sheets.

Mr. Dunmire is responsible for collection of lead and copper samples, the monthly coliform samples and the annual disinfectant by product (DBP) sample. The System stated that they had completed their second round of lead and copper sampling for 2022 in October and did not have lead or copper action level exceedances. Sample locations for lead and copper and coliform are spaced throughout the entire System. The System uses a Hach DR300 to measure chlorine residuals during the monthly coliform testing and any additional spot chlorine residual testing done as needed. EPA observed Mr. Dunmire collect a free chlorine sample using the Hach DR300. Mr. Dunmire first took a sample of water with no reagent added, placed it in the device and zeroed out the handheld device. After doing so he then took the sample out of the device, added the reagent, and shook the sample till the reagent was dissolved. Once the reagent was dissolved he then put the sample immediately back in the device and took a reading (see results in Section IV).

In addition to the compliance monitoring and sampling, the System is also doing monthly test for Legionella with the Illinois Department of Health. Every month a representative from the University of Illinois will come out and collect water samples throughout the System. The sample locations are random and a new location is sampled each time they come onsite.

Reference #: IN-003	**Topic:** Operations and Maintenance	**AOC:** Yes

The System stated that the water system is operated 24/7 and there are System staff present at all times of the day. At a minimum the System always has a Powerhouse engineer and fireman who rotate on shifts every 8 hours.

The System does not have a formal preventative maintenance program; repairs or maintenance work is done continually as needed. System staff do daily checks of the water system. If staff observe any issues these get reported

to Mr. Daly and a work order is generated. The work order is entered into a master work order log and is monitored through the log until the issue has been fully addressed. The System tries to do repairs and maintenance work internally and will contract out for lager projects as needed. The System does not have a water system specific capital improvement plan, however the entire Correctional Center does and any large project at the water system would fall under the large capital improvement plan for the facility.

EPA asked the System about their cross-connection control program. The System stated that they do not have a formal cross connection program, but they do maintain an inventory. The System has approximately 50 cross connection locations that they are aware of. EPA asked the last time the backflow preventer devices were tested and the System provided a record showing that devices were last tested in 2020. The System stated they try to test devices as often as they can but they have been unable to test in the last few years. The System has staff certified to do the backflow prevention testing, however due to funding and resources issues they have not been able to get backflow preventer testing kits to annually test the deceives.

EPA asked the System if they have any issues with low pressure, line breaks or water quality. The System stated that they have occasional leaks and breaks in the lines but have plenty of staff and materials available to address and replace quickly. The System also stated that they have not had issues with low pressure however they have been dealing with low chlorine residual issues over that last few years. The System has experienced chlorine residuals below 0.5 milligrams per liter (mg/L) on incoming water filling the elevated water tower. Since the System does not have chlorine treatment in place Mr. Dunmire has implemented a practice for System staff to immediately notify him if the daily free chlorine residual monitoring results are below 1 mg/L. In this event the System contacts their purchased water supplier to boost the chlorine treatment to avoid low residuals in the System. EPA asked the System if they have ever issued a boil water notice following the free chlorine residual being measured below 0.5 mg/L. the System responded that they have not.

Reference #: IN-004	**Topic:** Distribution System	**AOC:** Yes

The System stated that the average pressure in the System is consistently between 60 to 64 pounds per square inch (psi). The System has an inventory of water mains and line materials that are located underground. The underground water main materials are a mix of ductile iron and PVC. The System stated that the water mains are relatively new and were put in about 20 years ago. The System does not maintain an inventory of piping material above ground or within the buildings. Stateville proper is proximality 100 years old and so far through repair work they have mainly been finding copper or galvanized iron lines. The System has not identified lead lines inside the buildings however they cannot definitively say there are none.

The entire water system is flushed twice per year. The System stated that the Illinois Department of Corrections recently set up a contract with a third-party company named Phigenics to develop a water management program. Phigenics acts a contractor to the System to assist them in optimizing operations and efficiency. Part of the water management program requires the System to implement more frequent spot flushing through the water system. Phigenics has created a flushing plan that requires the System to spot flush at specific locations and conduct spot chlorine residual testing before and after flushing to see if the residual improves. The System is currently just following the flushing protocol and has not been able to begin the chlorine testing. The System was waiting on chlorine reagents to being testing with the flushing. The System is concerned about the time and resources required to do this additional flushing and testing. The System expressed that their budget and staff are already limited and are concerned that this additional work could take away from the other duties in running the System.

The System currently has one 750,000 gallon elevated storage tank currently in service. EPA observed a second water tower in poor condition near the boundaries of the System with Stateville painted on the exterior. At the time of inspection the System was not sure who currently owns the older water tower. They stated that at some point in time the water tower was connected to the System. The water tower at the time of inspection was valved off from the System's water mains but the staff present were unsure if the older water tower was also physically disconnected and the connecting main had been removed.

Reference #: IN-005	**Topic:** Records	**AOC:** Yes
The System stated that records of maintenance work, monitoring and sampling are stored onsite at the System. Mr. Dunmire retains copies of the signed MORs. EPA asked the System how they track and monitor water complaints. Mr. Daly explained that he receives what the Correctional Center calls conditions of confinement request. Essentially, anytime a prisoner has a complaint or issue they report this to their floor officer who generates a work ticket. The tickets are brought to Mr. Daly who then generates a work order based on the issue in the ticket. The work order is tracked until the issue has been resolved. The tickets are kept by the water system for two-years and the work orders are kept indefinitely. The System stated that they do on occasion receive letters or complaints from groups or people outside of the water system. Some of these are specific to prisoner and some are more general about the entire correctional center. The System does not usually keep copies of the letters or complaints from groups or people outside of the water system and they do not draft formal responses to them. If they receive a letter about a specific prisoner or living conditions they do typically investigate internally and perform follow up action as it is needed.		

SECTION II – OBSERVATIONS

This section describes the various areas of the water system toured by EPA and the observations made by visual inspecting sites and assets.

Areas

EPA conducted a tour of the System and visually inspecting the following areas:

Area	Description
Powerhouse Lab	Lab where the System staff conducts the daily free chlorine residual testing.
Water tower	The System's has one 750,000-gallon water tower. This tower is used for finished water storage and is the entry point of purchased water for the System.

Observations

The EPA inspection team made observations by visually the areas identified above. All observations grouped by the areas inspected and are designated with a reference number. Each entry then indicates whether the observation is an AOC. AOCs are further discussed in Section V. A photograph log can be found in Appendix A. Observations may not be in sequential order in which they were observed.

Area: Powerhouse Lab	
Reference #: OB-001	**AOC:** No
The System stated that this lab is where the powerhouse engineer performs the daily free chlorine residual monitoring on water samples collected from the water tower by the powerhouse fireman. The System uses a HANNA Free and Total Chlorine Photometer to complete the free chlorine residual montoring that is reported on the MORs submitted to the Illinois EPA.	
Photo(s): Appendix A Photos 4, 5, 6, and 7	
Reference #: OB-002	**AOC:** No
Inside the lab was one of three log sheets that the powerhouse engineer or fireman fills out on daily basis. This log had daily readings for water pressure, water use, and free chlorine residual. The powerhouse engineer or fireman initial this log sheet as they fill out the information each day.	
Photo(s): NA	

Reference #: OB-003	**AOC:** Yes
While inside the powerhouse lab EPA looked at the System's analyzers for pH and orthophosphate. The System had two HACH DR300 Pocket Colorimeter devices, one each dedicated to pH and orthophosphate monitoring. When looking at the expiration dates for the reagents and solutions inside each of the two kits EPA identified that the Phenol Red indicator solution expired in August of 2022.	
Photo(s): Appendix A Photos 8, 9, 10, 11, 12, 13 and 14	

Area: Water Tower	
Reference #: OB-004	**AOC:** Yes
The overflow pipe and water lines inside of the water tower were severely rusted and peeling.	
Photo(s): Appendix A Photos 18, 19, 20 and 21	
Reference #: OB-005	**AOC:** Yes
Inside of the water tower EPA observed that a check valve was broken and was continuously leaking water. The System had a tarp over the pipe that contained the check valve to direct the leaking water into an underground pit. The System had a sump pump inside the pit that moved water from the pit inside the water tower to the ground outside. The area around the exterior base of the tower was flooded with the water being pumped out of the pit by the sump pump. The System stated that the valve has been broken and leaking for several years.	
Photo(s): Appendix A Photo 20 and 21	
Reference #: OB-006	**AOC:** Yes
EPA asked if the water tower had any devices or equipment inside the water tower that would turn over water. The System stated that they do not have devices or equipment inside the water tower.	
Photo(s): NA	
Reference #: OB-007	**AOC:** Yes
EPA asked when the last time the water tower had an interior inspection. The System staff stated they were not aware of the interior or exterior of the water tower being inspected since it was installed and have no records of inspections or maintenance work done.	
Photo(s): NA	
Reference #: OB-008	**AOC:** Yes
EPA observed that exterior base of the water tower was discolored. It appeared the base was covered in mildew and there were signs of peeling paint. EPA asked the System when the exterior of the water tower was last painted and the System stated that they do not have record of it being repainted since it was installed.	
Photo(s): Appendix A Photo # 22 and 23	
Reference #: OB-009	**AOC:** No
While in the water tower EPA observed Mr. Daly collect a free chlorine residual measurement using the HANNA Free and Total Chlorine Photometer that the Powerhouse engeineer uses for the daily residual measurements. Mr. Daly first took a sample of water with no reagents, placed it in the device and zeroed out the handheld device. After doing so he then took the sample out of the device, added the reagent, and shook the sample till the reagent was dissolved. Once the reagent was dissolved, he then put the sample immediately back in the device and took a reading (see results in Section IV).	
Photo(s): NA	

SECTION III – RECORDS

The section identifies the records EPA reviewed during the inspection. All records are designated with a reference number. Each entry then indicates whether the record reviewed is an AOC. AOCs are further discussed in Section V. Records may not be in sequential order in which they were reviewed.

Record: Lead and Copper Sample Location and Results from December 2019 to October 2022	**AOC:** No
Reference #: RR-001	
This spreadsheet shows the System's analytical sample results that were taken for both lead and copper from December 2019 to October 2022. The System has collected twenty lead and copper samples each six-month period they monitored with the exception of the second monitoring period in 2021. During the July 1, 2021, to December 31, 2021, monitoring period the System performed two rounds of sampling but only one round was used for compliance monitoring purposes. The System exceeded the action level for copper in the July to December 2019, January to June 2020, July to December 2020, January to June 2021, and July to December 2021 monitoring period. The System has not had an action level exceedance for lead or copper in 2022. The System did have induvial samples exceed the action level however the 90th percentile level of all tap water samples collected in the two separate 2022 monitoring periods was below the action level (copper ALE is 1.3 mg/L and lead ALE is 0.015 mg/L). The document also shows that 10 sample locations were removed from the sample pool and replaced with new sites from December 2019 to October 2022.	
Copy of Document Obtained During Inspection: Yes	

Record: Revised Total Coliform Rule (RTCR) Sample Result from 2020 to 2022	**AOC:** No
Reference #: RR-002	
The System has not experienced a coliform positive sample from 2020 to 2022.	
Copy of Document Obtained During Inspection: Yes	

Record: RTCR Sample Siting Plan	**AOC:** No
Reference #: RR-003	
The plan included a list of sampling sites the System uses for RTCR.	
Copy of Document Obtained During Inspection: Yes	

Record: DBP Sample Results from	**AOC:** No
Reference #: RR-004	
The System has not experienced a DBP exceedance from 2020 to 2022.	
Copy of Document Obtained During Inspection: Yes	

Record: Lead and Copper Monitoring Site Plan Change Request Dated January 2022	**AOC:** No
Reference #: RR-005	
The System provided a copy of their most recent request to change their Lead and Copper Monitoring Site Plan with Illinois EPA. The System requested to add three new sample sites located within cell blocks in the Correctional Center to their pool. This document also identifies the rest of the System's sample locations for lead and copper. All of the sample sites have the tier designation "OT" which means other.	
Copy of Document Obtained During Inspection: Yes	

Record: Sample Location Map for DBP, Lead and Copper and RTCR	**AOC:** No
Reference #: RR-006	
Map displays the System's sample locations for DBP, lead and copper, and RTCR.	
Copy of Document Obtained During Inspection: Yes	

Record: System's Sanitary Survey Responses dated from 2011, 2014 and 2019	**AOC:** Yes
Reference #: RR-007	
The System provided three separate written responses they submitted to Illinois EPA in response to their 2011, 2014 and 2019 Sanitary Surveys. In 2011 and 2014 the System previously received deficiency notices for failure to have a cross connection plan. In 2011 the System responded that they generated and submitted a cross connection control program to Illinois EPA and in 2014 the System responded that they have an approved cross connection control program. In 2014 and 2019 the System previously received deficiency notices for failure to maintain a free chlorine residual above 0.02 mg/L in 2014 and 0.50 mg/L in 2019. In 2014 the System responded that they have been improving their relationship with their supplier of water and in 2019 the System responded that they have initiated new protocols and training of staff to address this issue.	
Copy of Document Obtained During Inspection: Yes	

Record: 2022 MORs	**AOC:** Yes
Reference #: RR-008	
The System provided copies of their 2022 MORs from January 1, 2022, to October 31, 2022. The System collects daily measurements of water use, pressure and free chlorine residual. When reviewing the MORs EPA identified multiple instances of free chlorine residuals below 0.50 mg/L at the entry point to the water system. There were 3 instances in January, 8 instances in February, 9 instances in March, 1 instance in May, 5 instances in July, 4 instances in August, 8 instances in September and 5 in October 2022.	
Copy of Document Obtained During Inspection: Yes	

Record: Optimal Corrosion Control Treatment Recommendation Letter Dated July 29, 2022	**AOC:** No
Reference #: RR-009	
The System provided a copy of their Optimal Corrosion Control Treatment Recommendation Letter that was submitted to Illinois EPA in July of 2022. The System was required to conduct a corrosion control study due to past action level exceedances. In this letter the System recommend that no corrosion control treatment is required and provided a narrative to support the recommendation. A summary of the narrative is that towards the end of 2021 the System started with the current Illinois Rural Water Association contract operator. The current operator identified deficiencies with the samples procedures and sample locations that were used by the previous operator. In 2022 the current operator revised the System's lead and copper sample pool through Illinois EPA to include locations within housing units/other areas where water was commonly being consumed and inactivated previous sample locations that did not meet the sample location criteria or were in areas of the correction center that are not frequently used. Since revising the sample pool locations, the System feels they have more representative sample locations for water consumption, and they have not exceeded the action level. At the time of inspection the System had not received a response from Illinois EPA on whether the recommendation has been accepted.	
Copy of Document Obtained During Inspection: Yes	

Record: Phigenics Water Management Program Documentation	**AOC:** No
Reference #: RR-010	
This document is the water management program summary of the System that was generated by Phigenics. This document provides a summary of the water system, points of contact within the System and water process summaries.	
Copy of Document Obtained During Inspection: Yes	

SECTON IV – SAMPLING AND FIELD MONITORING ACTIVITIES

The section describes sampling and field monitoring activities. All samples are designated with a reference number. EPA inspector, Taylor Girouard, used a Hach SL1000, Frank Dunmire used a Hach DR300 and Jermiagh Daly used a HANNA Free and Total Chlorine Photometer to measure for free chlorine at the following locations:

Sampling Data Summary Table							
Sample Date/Time	**Reference #**	**Samplers Initials**	**Sample Location**	**Parameter**	**Test Method**	**Results**	**Regulatory Limit**
11/29/22 11:35 AM	SA-001	FD	Sink in the administration building	Free Chlorine	DPD Free Chlorine	1.82 mg/L	0.5 mg/L
11/29/22 11:35 AM	SA-002	TG	Sink in the administration building	Free Chlorine	DPD Free Chlorine	2.09 mg/ L	0.5 mg/L
11/29/22 1:10 PM	SA-003	JD	Water tower	Free Chlorine	DPD Free Chlorine	1.19 mg/L	0.5 mg/L
11/29/22 1:10 PM	SA-004	TG	Water tower	Free Chlorine	DPD Free Chlorine	1.06 mg/L	0.5 mg/L

SECTION V – AREAS OF CONCERN

This section provides AOCs identified during the inspection. All AOCs are grouped by the areas inspected, when relevant. The presentation of AOCs does not constitute a formal compliance determination or violation. AOCs may not be in sequential order.

Area: Opening Conference

AOC Reference #: IN-001

Regulation: 35 Ill. Adm. Code 681.215(a)

Provides that every community water supply shall employ on its operational staff at least one natural person certified as competent as a water supply operator.

AOC: The System's current operator in charge contract is set to expire soon. At the time of inspection, the System was not sure if the contract would be renewed, nor did they have another operator in place to ensure there is not a lapse in an operator in charge. All community water systems are required to have a certified operator in charge.

Additional Notes: If the System experiences a change in operator as described in the report the System should ensure that they retain copies of any records or MORs that were being retained offsite by previous staff.

AOC Reference #: IN-003 and RR-007

Regulation: 35 Ill. Adm. Code 604.1505

a) All community water supplies, including those that meet the criteria in Section 17(b) of the Act and any exempt community water supply as defined in Section 9.1 of the Public Water Supply Operations Act [415 ILCS 45], must have a cross connection control program to educate and inform water supply consumers regarding prevention of the entry of contaminants into the distribution system.
b) The cross connection control program must include the following:
1) For any new service connection, the community water supply must evaluate the risk of cross connection whereby an unsafe substance may enter a community water supply.
2) A community water supply must conduct a cross connection control survey of the distribution system at least every three years. The survey must be conducted by the owner, official custodian or an authorized delegate. The survey must evaluate the risk of an unsafe substance entering a community water supply through each service connection to the distribution system of the community water supply. This survey is not intended to include an actual visual inspection of piping or plumbing systems.
3) From each completed survey, the community water supply must develop an inventory of the following:
A) all customers surveyed;
B) the number of customers who responded to the survey;
C) identification of service connections not required to have a backflow preventer installed under 77 Ill. Adm. Code 890.1130;
D) identification of service connections required to have a backflow preventer installed under 77 Ill. Adm. Code 890.1130;

E) backflow preventers installed;
F) service connections that require further risk evaluation; and
G) corrective actions to mitigate cross connections.

4) An ordinance, tariff, or required condition for service, whichever is applicable, that meets the Illinois Plumbing Code (77 Ill. Adm. Code 890), must be adopted and enforced.

5) The community water supply must maintain records of all backflow preventers that require annual testing under 77 Ill. Adm. Code 890 and identified in subsections (b)(2) and (b)(3).

AOC: The System does not have a complete cross connection program and has not been testing backflow preventers on an annual basis.

Additional Notes: This issue was previously cited by the Illinois EPA in a previous sanitary survey.

AOC Reference #: IN-004

Regulation:	NA

NA

AOC: The System at the time of inspection was unclear who owns the older water tower located near the water system and if it was physically disconnected from the System. The System should make sure the water tower is physically disconnected to prevent potential cross connection issues and damage to water mains.

Additional Notes:

Area: Powerhouse Lab

AOC Reference #: OB-003

Regulation:	NA

NA

AOC: While inside the powerhouse lab EPA identified that the Phenol Red indicator solution expired in August of 2022.

Additional Notes:

Area: Water Tower

AOC Reference #: OB-004

Reference:	Recommend Standards for Water Works (10 State Standards) and American Water Works Association (AWWA) Standards

NA

AOC: The overflow pipe and water lines inside of the water tower were severely rusted and peeling. AWWA and 10 State Standards recommend finished water storage structures be assessed and inspected (both internal and external) every 5 years to ensure the structures have mechanical integrity and do not pose threat to finished water quality.

Additional Notes:

AOC Reference #: OB-005

Regulation:	NA

NA

Inside of the water tower EPA observed that a check valve was broken and was continuously leaking water. The stated that it has been leaking for many years.

Additional Notes:

AOC Reference #: OB-006	
Regulation:	35 Ill. Adm. Code 604.1300(f)
Provides that finished water storage must be designed to facilitate turnover of water to avoid stagnation	
AOC: The System stated that they do not have devices or equipment inside the water tower to promote water turnover.	
Additional Notes:	

AOC Reference #: OB-007	
Reference:	Recommend Standards for Water Works (10 State Standards) and American Water Works Association Standards
NA	
AOC: The System was unaware and had no records of the last time the elevated water tower had been inspected, painted, repaired or cleaned. AWWA and 10 State Standards recommend finished water storage structures be assessed and inspected (both internal and external) every 5 years to ensure the structures have mechanical integrity and do not pose threat to finished water quality.	
Additional Notes:	

AOC Reference #: OB-008	
Reference:	Recommend Standards for Water Works (10 State Standards) and American Water Works Association Standards
NA	
AOC: EPA observed that exterior base of the water tower was discolored. It appeared the base was covered in mildew and there were signs of peeling paint. AWWA and 10 State Standards recommend finished water storage structures be assessed and inspected (both internal and external) every 5 years to ensure the structures have mechanical integrity and do not pose threat to finished water quality.	
Additional Notes:	

Area: Record Review	
AOC Reference #: RR-008, RR-007 and IN-003	
Regulation:	35 Ill. Adm. Code 604.725(a)
Provides that a minimum free chlorine residual of 0.5 mg/L or a minimum combined chlorine residual of 1.0 mg/L must be maintained in all active parts of the distribution system at all times.	
AOC: EPA identified and the System stated that on numerous occasions the System had daily incoming water free chlorine residuals below 0.5 mg/L.	
Additional Notes:	

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

This section describes the closing conference, records that were requested to be provided following the inspection and provides a log of communication following the inspection.

Closing Conference

The Taylor Girouard held a closing conference with System personnel at 1:30 PM on November 29, 2022 for the inspection. During the closing conference, Taylor Girouard discussed the observations and Areas of Concern identified during the inspection. Areas of Concern have not yet been evaluated for a formal compliance determination.

Follow Up

At the time of the inspection, EPA requested that the additional document be submitted following the inspection. All requested documents are designated with a reference number.

Reference #: CC-1
A copy of the System's request to Illinois EPA to change lead and copper sample sites.

Communication Log

EPA received additional information following the inspection.

Date	Type	Point of Contact	Description (Including Documents Name, if applicable)	Contain PII	Contains CBI
11/30/22	Email	Frank Dunmire	Mr. Dunmire emailed a copy of the System's request to Illinois EPA to change lead and copper sample sites dated January 11, 2022 (CC-1)	No	No

LIST OF APPENDICES AND ATTACHMENTS

APPENDICES

1. **Photolog**

Stateville Correctional Center
November 29, 2022

APPENDIX 1: PHOTOLOG

Photo 1
Image Name: RIMG0109.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 11:22 AM
Description: System's HACH DR300 Pocket Colorimeter used to collect residual chlorine measurements when doing RTCR sampling and other spot measurements for chlorine residuals throughout the water system.

Photo 2
Image Name: RIMG0110.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 11:23 AM
Description: Free chlorine reagent packet used by the System.

Photo 3
Image Name: RIMG0111.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 11:23 AM
Description: Duplicate of Photo 2.

Photo 4
Image Name: RIMG0112.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:45 PM
Description: HANNA Free and Total Chlorine Photometer that the System uses to measure free chlorine in daily water samples collected from the water tower.

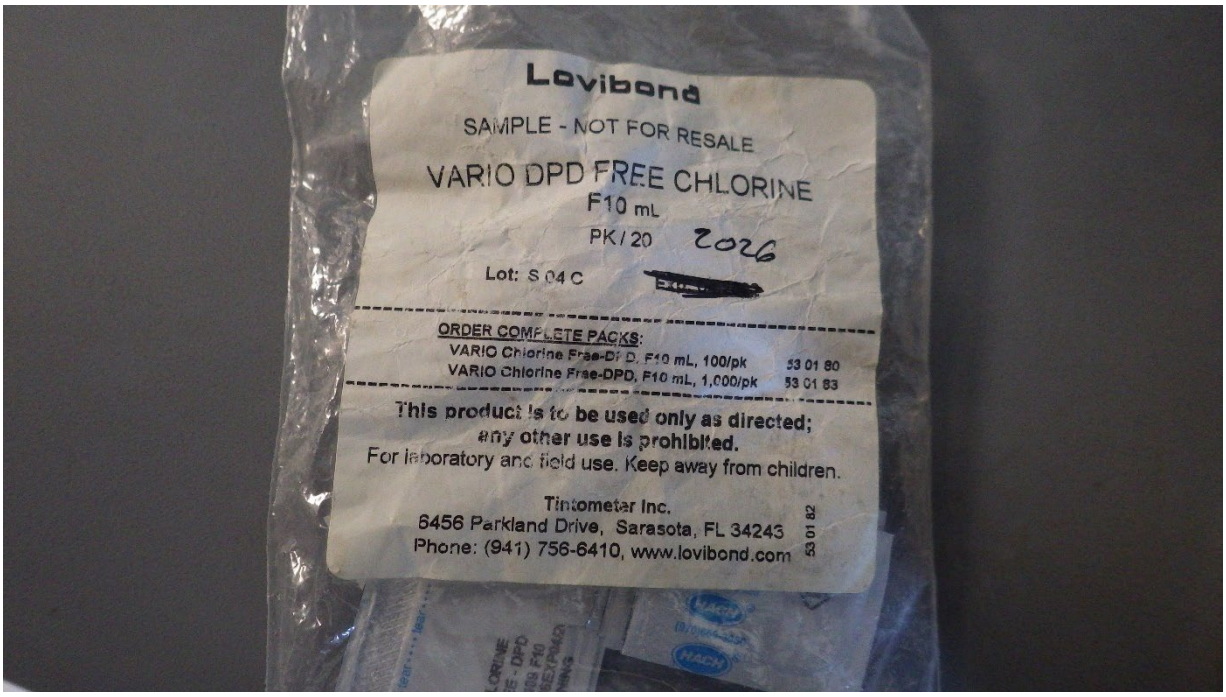

Photo 5
Image Name: RIMG0113.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:45 PM
Description: Bag of free chlorine reagent packets that the System stores with the HANNA Free and Total Chlorine Photometer.

Photo 6
Image Name: RIMG0114.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:45 PM
Description: A second photo of the bag of free chlorine reagent packets that the System stores with the HANNA Free and Total Chlorine Photometer.

Photo 7
Image Name: RIMG0115.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:46 PM
Description: Total chlorine reagent packets.

Photo 8
Image Name: RIMG0116.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:52 PM
Description: HACH DR300 Pocket Colorimeter that the System uses to measure pH.

Photo 9
Image Name: RIMG0117.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:53 PM
Description: HACH DR300 Pocket Colorimeter that the System uses to measure pH.

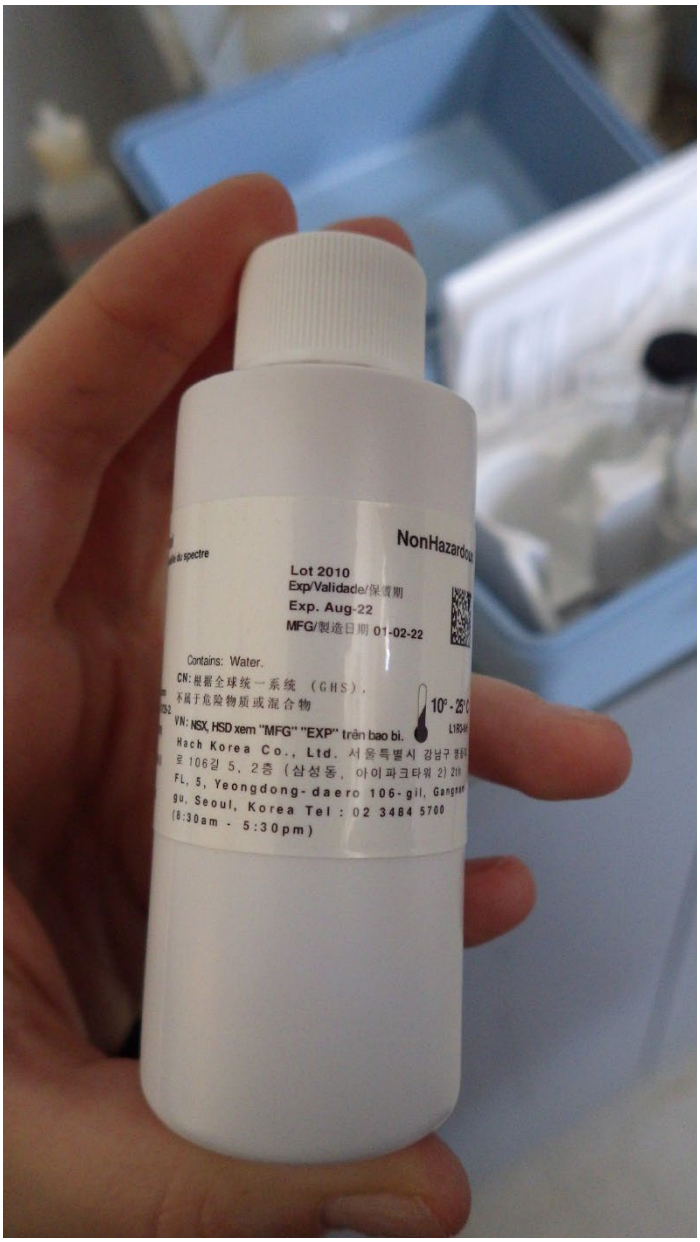

Photo 10
Image Name: RIMG0118.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:53 PM
Description: Phenol Red indicator solution used to measure pH. This solution expired in August of 2022.

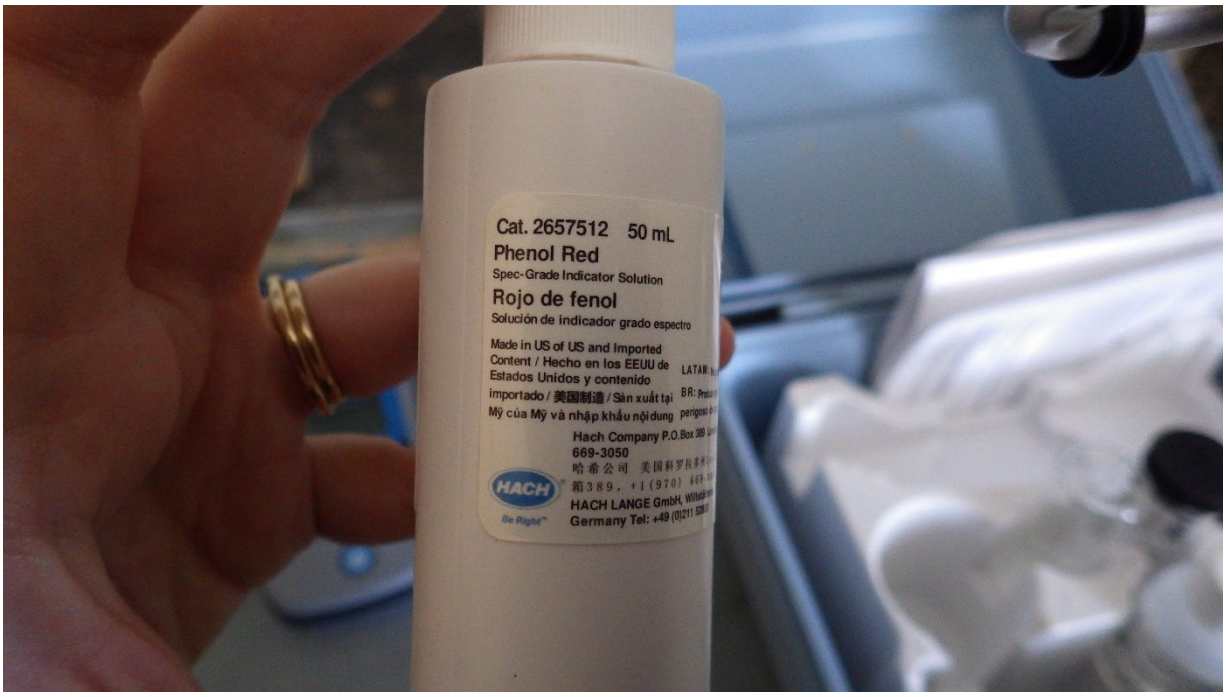

Photo 11
Image Name: RIMG0119.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:53 PM
Description: A second photo of the Phenol Red indicator solution used to measure pH.

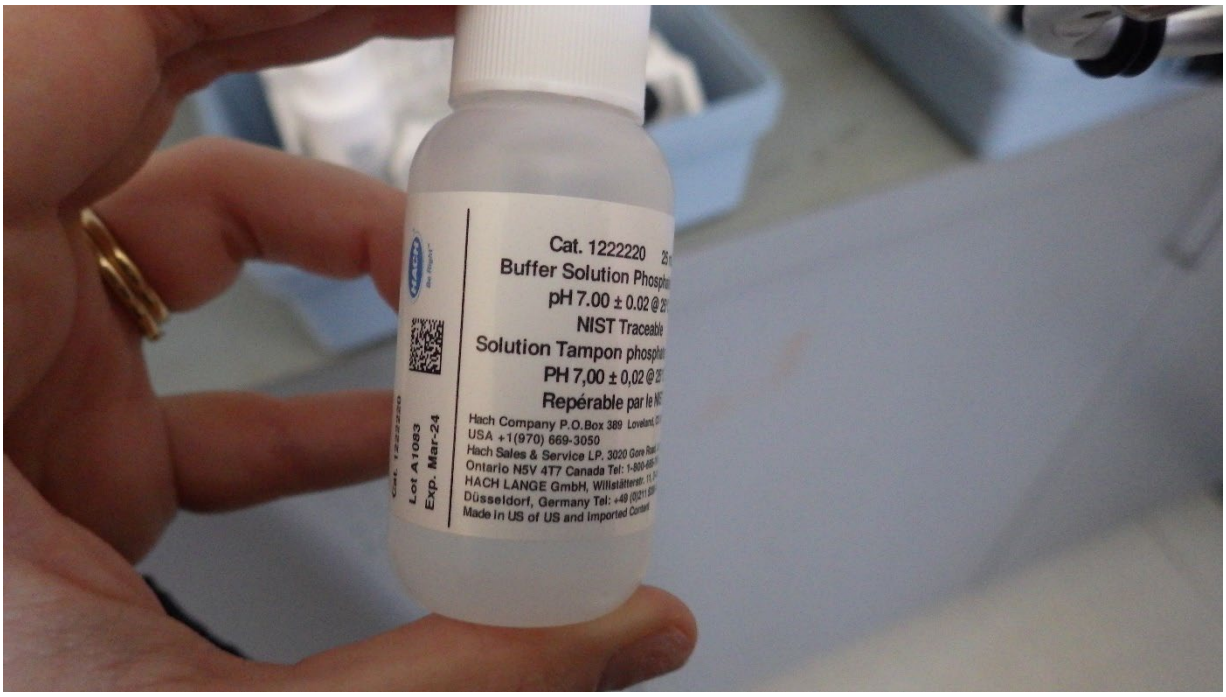

Photo 12
Image Name: RIMG0120.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:54 PM
Description: Buffer soultion for the HACH DR300 Pocket Colorimeter that the System uses to measure pH.

Photo 13
Image Name: RIMG0121.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:54 PM
Description: HACH DR300 Pocket Colorimeter that the System uses to measure phosphate.

Photo 14
Image Name: RIMG0122.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:54 PM
Description: HACH DR300 Pocket Colorimeter that the System uses to measure phosphate.

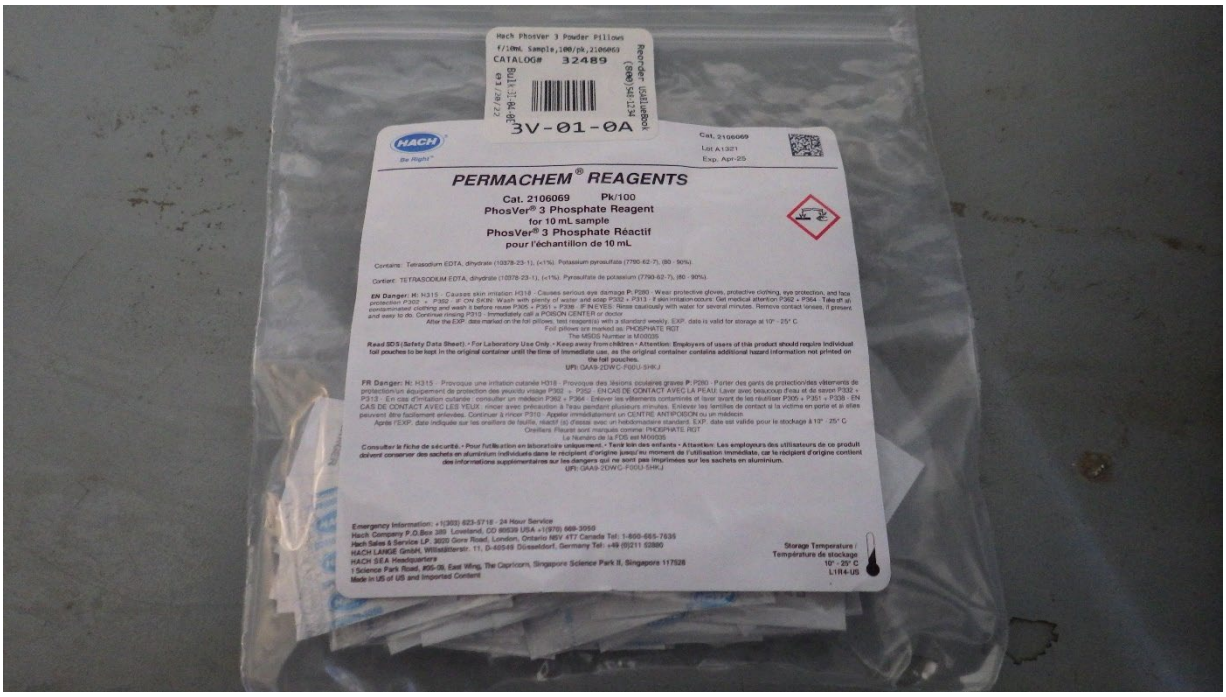

Photo 15
Image Name: RIMG0123.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 12:55 PM
Description: Phopshate reagent packets.

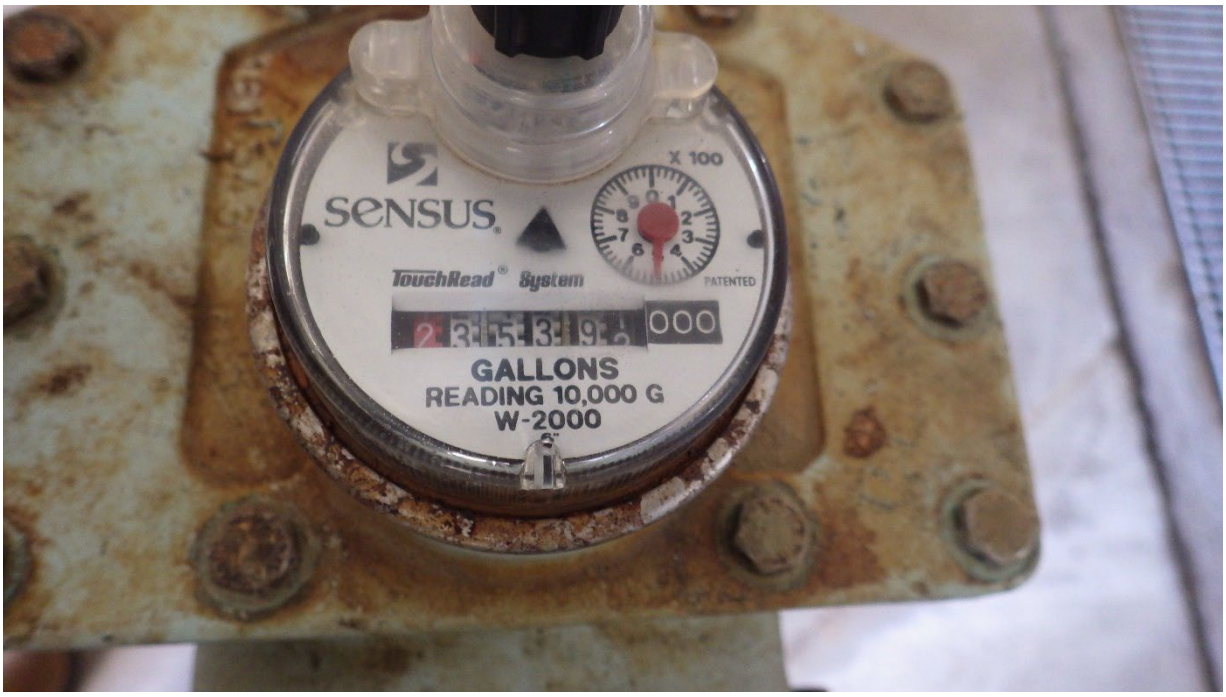

Photo 16
Image Name: RIMG0124.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:04 PM
Description: Master water meter located on the incoming water line inside the water tower. At the time of inspection the meter read approximatlly 235,392,000 gallons.

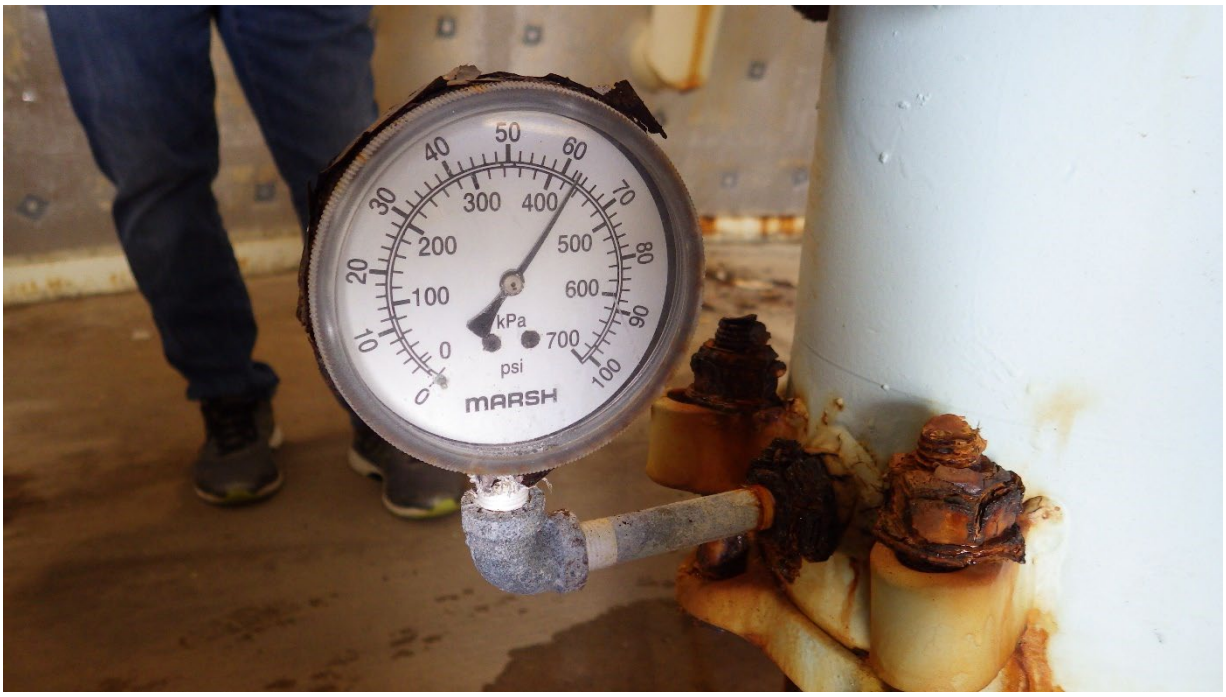

Photo 17
Image Name: RIMG0125.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:04 PM
Description: Master pressure gauge located on the incoming water line inside the water tower. At the time of inspection the meter read approximatlly 63 psi.

Photo 18
Image Name: RIMG0126.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:04 PM
Description: Part of the overflow pipe for the water tower located inside the water tower.

Photo 19
Image Name: RIMG0127.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:05 PM
Description: Sample tap located inside of the water tower. This sample tap is located on the incoming water main for the System.

Photo 20
Image Name: RIMG0128.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:06 PM
Description: Check valve on the water main inside of the water tower. At the time of inspection the check valve was broken and finsihed water can be seen leaking from the valve and draining into a pit.

Photo 21
Image Name: RIMG0129.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:24 PM
Description: Interior of the water tower.

Photo 22
Image Name: RIMG0130.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:25 PM
Description: Exterior of the water tower. At the time of inspection the base of the water tower was covered in what appears to be mildew.

Photo 23
Image Name: RIMG0131.JPG
Location: Stateville Correctional Center
Photographer: Taylor Girouard
Date/Time: 11/29/2022 1:26 PM
Description: Exterior of the water tower. At the time of inspection the base of the water tower was covered in what appears to be mildew.